

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 09/3/2/S96F

Source: IFW/C

Date Processed by STIC: 1-4-05

ENTERED



IFW16

RAW SEQUENCE LISTING

DATE: 01/04/2005

PATENT APPLICATION: US/09/312,596F

TIME: 13:26:37

Input Set : A:\593601.txt

Output Set: N:\CRF4\01042005\I312596F.raw

```

3 <110> APPLICANT: Role, Lorna W.
4     Talmage, David
5     Bao, Jianxin
7 <120> TITLE OF INVENTION: A-FORM OF CYTOPLASMIC DOMAIN OF nARIA (CRD-NEUREGULIN
8     AND USES THEREOF
10 <130> FILE REFERENCE: 0575/59360
12 <140> CURRENT APPLICATION NUMBER: 09/312,596F
13 <141> CURRENT FILING DATE: 1999-05-14
15 <160> NUMBER OF SEQ ID NOS: 5
17 <170> SOFTWARE: PatentIn Ver. 2.1
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 3212
21 <212> TYPE: DNA
22 <213> ORGANISM: CHICKEN nARIA
24 <400> SEQUENCE: 1
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26 ct ccttctac cgcatgacaa ttgttttcc tgcctaagca gataccagcc tcagatgctc 120
27 aagggtgagag tcttgccctt cgctctgggc tattgggtca cttaatccgg tcaatttggt 180
28 cgctgctcgt ggttgctctt cccccgcc tcttcccc tgttttgtt tgtttcgctt 240
29 gctttcgggg ggacgctcct tccctcagtc agaagagctg gaattgctt agaggcgtat 300
30 aaggaattat aaaagtggcc aggaacacg agcgcagtga ctgcagagct gcccttggtc 360
31 tcggcaaggc agcgtgagcg gcagagggct cgggcagggg gcgggggggc tctttttcc 420
32 cgtgcgttcc tcttctccca gttcggatga tggtgctgtt tcggacctc cgctgactcc 480
33 tgccctgtga tttttgctga gcgctgtgac tgttactccg tctctttctg tctgtgttcc 540
34 acagtaaatg actgtgatag agttaaggcc ttttgagggt gagctgtgtc acagctgatg 600
35 cttaaacaatg tctgaagtag gcaccgagac tttccccagc ccctcggtc agctgagccc 660
36 tgatgcatcc cttggcgggc tcccggtga ggagaacatg ccggggcccc acagagagga 720
37 cagcagggtc ccagggtgtg caggcctggc ctgcacctgc tgcgtgtgcc tgggaagcaga 780
38 gcgactgaag ggctgcctca actctgagaa gatctgcac gccctatcc tggcttgctc 840
39 gctcagcctc tgcctctgca ttgctggcct caagtgggtc tttgtggaca agatttttga 900
40 gtatgactct cctacacacc ttgacctgg gaggatagga caagaccaa ggagcactgt 960
41 ggatcctaca gctctgtctg cctgggtgcc ttcggagggt tatgcctcac ccttccccat 1020
42 acctagcctt gagagcaagg ctgaagtgc agtgcaaaact gacagctcgc tcgtgccctc 1080
43 caggcccttc cttcagcctt ctctctacaa ccgcaccta gatgtcgggt tgtggtcctc 1140
44 tgccacaccg tcaactgtcac catcctccct ggagcctacc acggcatctc aggcacaagc 1200
45 aacagaaacc aatctccaaa ctgctccaaa actttccact tctacatcta caactgggac 1260
46 aagtcactct acaaaatgtg acataaagca gaaagccttc tgtgtaaatg ggggagagtg 1320
47 ctacatggta aaagacctcc caaacctcc acgataccta tgcagggtgcc caaatgaatt 1380
48 tactgggtgat cgctgcaaaa actacgtaat ggccagcttc tacaagcatc ttgggattga 1440
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50 tgctcttcta gtagttggca tcatgtgtgt ggtggcctac tgcaaaacca agaagcagag 1560
51 gaaaaagttg catgaccgcc ttcggcagag ccttcgctca gagaggaaca acgttatgaa 1620
52 catggcaaat gggccacacc accccaaccc accaccagac aatgtccagc tgggtgaatca 1680

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53 gtacgttttca aaaaacataa tctccagtga acgtgtcgtt gagcgagaaa ccgagacctc 1740
54 gttttccaca agccactaca cctcaacaac tcatcactcc atgacagtca cccagacgcc 1800
55 tagccacagc tggagtaatg gccataccga aagcattctc tccgaaagcc actccgtgct 1860
56 cgtcagctcc tcagtggaga atagcaggca caccagccca acagggccac gagggccgct 1920
57 caatggcatt ggtgggcca ggaaggcaa cagcttcctc cggcatgcaa gagagacccc 1980
58 tgactcctac cgagactctc ctccagtga aaggtatgtc tcagctatga ccacaccagc 2040
59 tcgcatgtca cccgttgatt tccacactcc aacttctccc aagtcccctc catctgaaat 2100
60 gtcaccacca gtttccagct tgaccatctc catcccctcg gtggcggtga gtcccctttat 2160
61 ggacgaggag agaccgctgc tgttggtgac cccaccacgg ctgcgtgaga agtacgacaa 2220
62 ccaccttcag caattcaact ccttcacaaa caatcccacc catgagagca acagtctgcc 2280
63 acccagtcct ctgaggatag tggaggatga agagtatgag accacgcagg agtacgaacc 2340
64 agcacaggag cctccaaaaga aactcaccaa cagccggagg gtgaaaagaa caaagcccaa 2400
65 tggccatatt tccagcaggg tagaagtgga ctccgacaca agctctcaga gcactagctc 2460
66 tgagagcgaa acagaagatg aaagaatagg tgaggataga ccatttctta gcatacaaaa 2520
67 tcccatggca accagtctgg agccagccgc tgcatatcgg ctggctgaga acaggactaa 2580
68 cccggcaaat cgcttctcca caccagaaga gttgcaagca aggttgtcca gtgtaatagc 2640
69 taaccaagac cctattgctg tataagacat aaacaaaaca catagattca catgtaaaac 2700
70 tttattttat ataatgaagt attccacctt taaattaaac aatttatttt atttttagcaa 2760
71 ttccgctgat agaaaaacaag agtggaaaaa gaaactttta taaattaagt atacgtatgt 2820
72 acaaatgtgt tatgtgccat atgtagcaat tttttacagt atttccaaaa tggggaaaga 2880
73 tatcaatggt gcctttatgt tatgttatgt tgagagcaag ttttgtacag ctacaatgat 2940
74 tgctgtccc tagtattttg caaaaccttc tagccctcag ttgttctggc ttttttgtgc 3000
75 attgcattat aatgactgga tgtatgattt gcaagaattg cagaagtccc catttgcttg 3060
76 ttgtggaatc cccagatcaa aaagccctgt tatggcactc acaccctatc cacttcacca 3120
77 ggaaaaaaa aaaatcaaaa aaaaaaaaaa aaaaaaaaaga aaagaaagag aaaaaagaaa 3180
78 agaaaaagaa aaaaaaagct gaaaaataaa aa 3212

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81 <210> SEQ ID NO: 2

82 <211> LENGTH: 1070

83 <212> TYPE: PRT

84 <213> ORGANISM: CHICKEN nARIA

86 <220> FEATURE:

87 <221> NAME/KEY: UNSURE

88 <222> LOCATION: (32)

89 <223> OTHER INFORMATION: Wherein Xaa = unclear results

91 <220> FEATURE:

92 <221> NAME/KEY: UNSURE

93 <222> LOCATION: (42)

94 <223> OTHER INFORMATION: Wherein Xaa = unclear results

96 <220> FEATURE:

97 <221> NAME/KEY: UNSURE

98 <222> LOCATION: (113)

99 <223> OTHER INFORMATION: Wherein Xaa = unclear results

101 <220> FEATURE:

102 <221> NAME/KEY: UNSURE

103 <222> LOCATION: (163)

104 <223> OTHER INFORMATION: Wherein Xaa = unclear results

106 <220> FEATURE:

107 <221> NAME/KEY: UNSURE

108 <222> LOCATION: (182)

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109 <223> OTHER INFORMATION: Wherein Xaa = unclear results
111 <220> FEATURE:
112 <221> NAME/KEY: UNSURE
113 <222> LOCATION: (199)
114 <223> OTHER INFORMATION: Wherein Xaa = unclear results
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117 <221> NAME/KEY: UNSURE
118 <222> LOCATION: (888)
119 <223> OTHER INFORMATION: Wherein Xaa = unclear results
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123 <222> LOCATION: (934)
124 <223> OTHER INFORMATION: Wherein Xaa = unclear results
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127 <221> NAME/KEY: UNSURE
128 <222> LOCATION: (984)
129 <223> OTHER INFORMATION: Wherein Xaa = unclear results
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132 <221> NAME/KEY: UNSURE
133 <222> LOCATION: (1067)
134 <223> OTHER INFORMATION: Wherein Xaa = unclear results
136 <400> SEQUENCE: 2
137 Gly Cys Cys Cys Tyr Cys His Phe Cys Arg Cys Arg Cys Cys Tyr Arg
138   1               5               10               15
W--> 140 Phe Cys Phe Cys Ser Phe Tyr Arg Met Thr Ile Val Phe Leu Ala Xaa
141               20               25               30
143 Ala Asp Thr Ser Leu Arg Cys Ser Arg Xaa Glu Ser Cys Leu Ser Leu
144               35               40               45
146 Trp Ala Ile Gly Ser Leu Asn Pro Val Asn Leu Phe Ala Ala Arg Gly
147               50               55               60
149 Cys Leu Ser Pro Arg Pro Pro Ser Pro Cys Phe Val Leu Phe Arg Leu
150   65               70               75               80
152 Leu Ser Gly Gly Arg Ser Phe Pro Gln Ser Glu Glu Leu Glu Leu Leu
153               85               90               95
155 Glu Arg Arg Ile Arg Asn Tyr Lys Ser Gly Gln Glu Thr Arg Ala Gln
156               100              105              110
158 Xaa Leu Gln Ser Cys Pro Trp Leu Arg Gln Gly Ser Val Ser Gly Arg
159               115              120              125
161 Gly Leu Gly Gln Gly Ala Gly Gly Leu Leu Phe Pro Val Arg Ser Ser
162               130              135              140
164 Ser Pro Ser Ser Asp Asp Val Ala Val Ser Asp Leu Ser Leu Thr Pro
165 145              150              155              160
167 Ala Leu Xaa Phe Leu Leu Ser Ala Val Thr Val Thr Pro Ser Leu Ser
168               165              170              175
170 Val Cys Val Ser Gln Xaa Trp Thr Val Ile Glu Leu Arg Pro Phe Gly
171               180              185              190
173 Gly Glu Leu Cys His Ser Xaa Cys Leu Asn Met Ser Glu Val Gly Thr
174               195              200              205
176 Glu Thr Phe Pro Ser Pro Ser Ala Gln Leu Ser Pro Asp Ala Ser Leu

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177      210      215      220
179 Gly Gly Leu Pro Ala Glu Glu Asn Met Pro Gly Pro His Arg Glu Asp
180 225      230      235      240
182 Ser Arg Val Pro Gly Val Ala Gly Leu Ala Ser Thr Cys Cys Val Cys
183      245      250      255
185 Leu Glu Ala Glu Arg Leu Lys Gly Cys Leu Asn Ser Glu Lys Ile Cys
186      260      265      270
188 Ile Ala Pro Ile Leu Ala Cys Leu Leu Ser Leu Cys Leu Cys Ile Ala
189      275      280      285
191 Gly Leu Lys Trp Val Phe Val Asp Lys Ile Phe Glu Tyr Asp Ser Pro
192      290      295      300
194 Thr His Leu Asp Pro Gly Arg Ile Gly Gln Asp Pro Arg Ser Thr Val
195 305      310      315      320
197 Asp Pro Thr Ala Leu Ser Ala Trp Val Pro Ser Glu Val Tyr Ala Ser
198      325      330      335
200 Pro Phe Pro Ile Pro Ser Leu Glu Ser Lys Ala Glu Val Thr Val Gln
201      340      345      350
203 Thr Asp Ser Ser Leu Val Pro Ser Arg Pro Phe Leu Gln Pro Ser Leu
204      355      360      365
206 Tyr Asn Arg Ile Leu Asp Val Gly Leu Trp Ser Ser Ala Thr Pro Ser
207      370      375      380
209 Leu Ser Pro Ser Ser Leu Glu Pro Thr Thr Ala Ser Gln Ala Gln Ala
210 385      390      395      400
212 Thr Glu Thr Asn Leu Gln Thr Ala Pro Lys Leu Ser Thr Ser Thr Ser
213      405      410      415
215 Thr Thr Gly Thr Ser His Leu Thr Lys Cys Asp Ile Lys Gln Lys Ala
216      420      425      430
218 Phe Cys Val Asn Gly Gly Glu Cys Tyr Met Val Lys Asp Leu Pro Asn
219      435      440      445
221 Pro Pro Arg Tyr Leu Cys Arg Cys Pro Asn Glu Phe Thr Gly Asp Arg
222      450      455      460
224 Cys Gln Asn Tyr Val Met Ala Ser Phe Tyr Lys His Leu Gly Ile Glu
225 465      470      475      480
227 Phe Met Glu Ala Glu Glu Leu Tyr Gln Lys Arg Val Leu Thr Ile Thr
228      485      490      495
230 Gly Ile Cys Ile Ala Leu Leu Val Val Gly Ile Met Cys Val Val Ala
231      500      505      510
233 Tyr Cys Lys Thr Lys Lys Gln Arg Lys Lys Leu His Asp Arg Leu Arg
234      515      520      525
236 Gln Ser Leu Arg Ser Glu Arg Asn Asn Val Met Asn Met Ala Asn Gln
237      530      535      540
239 Pro His His Pro Asn Pro Pro Pro Asp Asn Val Gln Leu Val Asn Gln
240 545      550      555      560
242 Tyr Val Ser Lys Asn Ile Ile Ser Ser Glu Arg Val Val Glu Arg Glu
243      565      570      575
245 Thr Glu Thr Ser Phe Ser Thr Ser His Tyr Thr Ser Thr Thr His His
246      580      585      590
248 Ser Met Thr Val Thr Gln Thr Pro Ser His Ser Trp Ser Asn Gly His
249      595      600      605

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251 Thr Glu Ser Ile Leu Ser Glu Ser His Ser Val Leu Val Ser Ser Ser
252      610                      615                      620
254 Val Glu Asn Ser Arg His Thr Ser Pro Thr Gly Pro Arg Gly Arg Leu
255 625                      630                      635                      640
257 Asn Gly Ile Gly Gly Pro Arg Glu Gly Asn Ser Phe Leu Arg His Ala
258                      645                      650                      655
260 Arg Glu Thr Pro Asp Ser Tyr Arg Asp Ser Pro His Ser Glu Arg Tyr
261                      660                      665                      670
263 Val Ser Ala Met Thr Thr Pro Ala Arg Met Ser Pro Val Asp Phe His
264                      675                      680                      685
266 Thr Pro Thr Ser Pro Lys Ser Pro Pro Ser Glu Met Ser Pro Pro Val
267      690                      695                      700
269 Ser Ser Leu Thr Ile Ser Ile Pro Ser Val Ala Val Ser Pro Phe Met
270 705                      710                      715                      720
272 Asp Glu Glu Arg Pro Leu Leu Leu Val Thr Pro Pro Arg Leu Arg Glu
273                      725                      730                      735
275 Lys Tyr Asp Asn His Leu Gln Gln Phe Asn Ser Phe His Asn Asn Pro
276                      740                      745                      750
278 Thr His Glu Ser Asn Ser Leu Pro Pro Ser Pro Leu Arg Ile Val Glu
279      755                      760                      765
281 Asp Glu Glu Tyr Glu Thr Thr Gln Glu Tyr Glu Pro Ala Gln Glu Pro
282      770                      775                      780
284 Pro Lys Lys Leu Thr Asn Ser Arg Arg Val Lys Arg Thr Lys Pro Asn
285 785                      790                      795                      800
287 Gly His Ile Ser Ser Arg Val Glu Val Asp Ser Asp Thr Ser Ser Gln
288                      805                      810                      815
290 Ser Thr Ser Ser Glu Ser Glu Thr Glu Asp Glu Arg Ile Gly Glu Asp
291                      820                      825                      830
293 Thr Pro Phe Leu Ser Ile Gln Asn Pro Met Ala Thr Ser Leu Glu Pro
294      835                      840                      845
296 Ala Ala Ala Tyr Arg Leu Ala Glu Asn Arg Thr Asn Pro Ala Asn Arg
297      850                      855                      860
299 Phe Ser Thr Pro Glu Glu Leu Gln Ala Arg Leu Ser Ser Val Ile Ala
300 865                      870                      875                      880
302 Asn Gln Asp Pro Ile Ala Val Xaa Asp Ile Asn Lys Thr His Arg Phe
303                      885                      890                      895
305 Thr Cys Lys Thr Leu Phe Tyr Ile Met Lys Tyr Ser Thr Phe Lys Leu
306      900                      905                      910
308 Asn Asn Leu Phe Tyr Phe Ser Asn Ser Ala Asp Arg Lys Gln Glu Trp
309      915                      920                      925
311 Lys Lys Lys Leu Leu Xaa Ile Lys Tyr Thr Tyr Val Gln Met Cys Tyr
312      930                      935                      940
314 Val Pro Tyr Val Ala Ile Phe Tyr Ser Ile Ser Lys Met Gly Lys Asp
315 945                      950                      955                      960
317 Ile Asn Gly Ala Phe Met Leu Cys Tyr Val Glu Ser Lys Phe Cys Thr
318                      965                      970                      975
320 Ala Thr Met Ile Ala Val Pro Xaa Tyr Phe Ala Lys Pro Ser Ser Pro
321      980                      985                      990
323 Gln Leu Phe Trp Leu Phe Cys Ala Leu His Tyr Asn Asp Trp Met Tyr

```

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/312,596F

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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:2; Xaa Pos. 32,42,113,163,182,199,888,934,984,1067

Seq#:4; Xaa Pos. 16,328,347,362,377,383,387,414,423,442

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:5; Line(s) 520

VERIFICATION SUMMARY

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L:140 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:16

M:341 Repeated in SeqNo=2

L:426 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0

M:341 Repeated in SeqNo=4